Politics of Technology or Technology of Politics?

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Abstract: The Western-based utopian dream of internet-enabled technology was to overcome distance, allow widespread participation, and forge a shared view of core political issues on complex matter such as justice, economy, and the environment. Politics increasingly takes to social media platforms, enlisting them as tools for gauging and influencing public opinion. This is the case for the Rousseau platform in Italy, designed by the popular anti-establishment party in Italy, 'M5S' or the Five Star Movement. In reference to Jean-Jacques Rousseau, in particular his 'Social Contract', it promises to deliver politics more directly to the people by proposing legislation in the online space, allowing members to vote via the platform, educating on and discussing regulations, and more. It aligns well with political utopias envisioned by the internet pioneers. The emancipatory potential and political power that AI brings to these platforms, their political developers, and the membership, is immediately apparent. But is there not a darker side to these technologies, as they become more advanced in gathering and analysing data, making intelligent predictions, and subsequently manipulating cognitive tendencies for the purpose of politics? We discuss some of the critiques and technical functions that may cast reasonable doubt on the participatory ideals, particularly related to relational surveillance as a dystopian issue. This may remind us of the Cambridge Analytica effect; but the influence of AI on these political platforms is not (yet) a criminal offence. Can AI enable the direct democracy which internet pioneers envisioned, or is it actually bringing us the totalitarian nightmare of the 'Brave New World'? If we harness AI to bring about greater democracy, individual empowerment, and emancipation of societies - this would bring about better worlds. But these tools so easily become corrupt. Is there not a darker side to these technologies, as they become more advanced in surveillance practices, making intelligent predictions, andsubsequently manipulating cognitive tendencies for the purpose of politics?

Keywords: politics, democracy, surveillance, big data, ethics

1. Introduction and Background

The intersection of politics and the internet creates a contested space. On the one hand, scholars believe that the online space can facilitate positive, successful politics. In *Politicizing Digital Space,* Smith (2017) for example discusses the public rejection of (what is seen as) the traditional political establishment, and feels this reinforces the hope in a conception of politics which becomes more participatory and offers direct citizen empowerment, individual agency, and democratic freedom. Such 'platform politics' (Lioy, Del Valle & Gottlieb, 2019) would appear to be the case of, for example, the Rousseau platform – the party platform of M5S, or the Five Star Movement (a popular, populist Italian party). But perhaps it can be said that no tool can be truly neutral, as it depends on people for its uses. The online space is a constructed one, technologically speaking, but also socially, and politically. The first paragraph below will revisit some of the imaginative vision developed during the Cold War era in the US, to draw out a hopeful political space.

On the flip side, as Bartlett (2018) describes, technology and democracy are locked 'in a bitter conflict' in this online space as we know it (p.5). Free will, for example, is actively eroded through the behaviourist techniques of social media, using distraction and attention manipulation. The commercialisation of data turns unique human individuals into data points, and then patterns, for analytical, predictive, and manipulative reasons. Freedom of speech turns into performative politics, and the promises of evened out social landscapes become tribal echo chambers once more. Potentially, as Kendall-Taylor, Frantz & Wright (2020) conclude, artificial intelligence (AI) surveillance could be a tool to still political opposition, giving rise to digital dictatorship. The use of digital data analytics for political manipulation is exemplified by the Cambridge Analytica case, where 87 million people's data was mined unethically, for political gain (Isaak & Hanna, 2018).

Returning to the material reality of the Rousseau platform in Italy today: its features and ideology reveal that it may be an anti-modern public sphere, with the inherent technical possibility for it to be a tool of repression, manipulation, or political persuasion. Lyon (2018), envisages relational surveillance as a tool of manipulation which is carried out with the active participation of the surveilled. Taking this as our starting point, we specifically consider the utopian promise, and dystopian potential, for the individual citizen situated in Western European democracies. We consider surveillance models as key to the political dystopia. Dwivedi et

al. (2019) point out society has not fully grasped the many ethical considerations associated with AI and big data, while Müller and Bostrom (2016) predicted that AI is likely to reach overall human ability in our lifetime. Here, we follow the definition of AI by Kaplan & Haenlein (2019: 17), as being 'a system's ability to interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation'. Bringing such AI into this dynamic marriage of politics and the internet could be explosive.

2. The Pioneering Hope: On the Establishment and Direct Democracy

Smith (2017) describes the online space as one of potential. Politics in his view is not a corrupting influence, nor is it a means to an end. Instead, politics 'is what makes us free' (Smith, 2017:4). In his view, 'digitizing the political and politicizing the digital' (p.6) brings hope to reinvigorate positive politics. Platform politics in particular offer to address 'the crisis of representation' in West-European democracy (Lioy, Del Valle & Gottlieb, 2019:45).

This resonates well with the leading vision of the pioneer-inventors of the internet and personal computing in the US. They believed that these technologies 'would democratize access to information, foster wider communities, and build a new global commons for communication, commerce, and collaboration.' (Waldrop, 2001:4). This vision is decidedly political, and rooted in the historical background of the Cold War. American defense was 'still the sector of government that supports computer technology most vigorously and imaginatively' (Licklider, 1979:95). JCR Licklider described the idea of the 'Multinet' (the internet as we know it today) in his book chapter 'Computers and the Government' (1979). It is as a space for everyone – the individual needs would be met in every respect, from online banking, shopping, scheduling, social interactions,… These ideas illustrate a liberal society, and include further progressive suggestions such as government responsibility to ensure individual privacy. Similarly, in JCR Licklider's only book, *Libraries of the Future* (1965), he describes from a very technical point of view what could be done to make digital information more accessible to all. Democratic politics supports this idea of free-flowing information (Rosenberger, 2018). But as AI for public use becomes more prevalent, governments are under pressure to renew regulatory frameworks – which could intensify existing citizen-government power asymmetries. Big data was anticipated even in the early stages: Licklider hoped governments will 'generate huge data bases' with security rules and procedures which have been developed with 'exquisite care and so fully tested, proven, demonstrated, and explained that almost everyone accepts their validity and effectiveness' (1979:92). This is an optimistic projection, which he mediates with observations on the 'issues and problems that are shaping the future of computer development' (Licklider, 197:95), which includes the relative neglect of controlled information sharing techniques, and the near impossibility in his view to make operating systems truly secure. Such issues are at the forefront of AI debates today too, as demonstrated by the work of the Ada Lovelace Institute in the UK, and the review by Dwivedi et al. (2019). Nevertheless, Licklider felt the new online space 'would give politics greater depth and dimension than it now has' (Licklider, 1979:114). He discussed the benefit of radical openness of electoral debate, 'bringing millions of citizens into active participation through millions of channels' (Licklider, 1979:115). Western ideals of morally superior politics often pertain to various forms of democracy, often representational – but the internet is felt to offer 'direct democracy' or 'radical democracy', bringing people closer to the actual decision-making. Licklider anticipated that the online space 'may create the facilities required for highly participatory political interaction' (Licklider, 1979:115). Interestingly, those spaces which are available today, such as the Rousseau platform for Italy's M5S, are also seen to put 'participatory pressure' on more traditional, hierarchical political parties (Lioy, Del Valle & Gottlieb, 2019).

He did see a darker side too: 'Such an environment and such a process would undoubtedly open up new vistas for dirty tricks.' (Licklider, 1979:115). In his view, the sheer amount of individual people participating in politics would outweigh any localised disruptive activity, 'unless, of course, a government or a syndicate controlled and subverted the whole network. Then clandestine artificial-intelligence programs, searching through the databases, altering files, fabricating records, and erasing their own audit trails, would bring a new meaning to "machine politics" (Licklider, 1979:115). But he considered it unlikely that his government would develop any such computer-based politics, as he termed it (p.115). However, it could be the covert tool of opposing politicians (Kaplan & Haenlein, 2020).

In Norbert Wiener's well-known book *Cybernetics* (first edition published in 1948, second edition in 1961), a foundational publication for computing and AI, he writes that we embrace 'technical developments with great

possibilities for good and evil. we can only hand it over into the world that exists about us' (p.28). He refers to Belsen and Hiroshima to illustrate that the world can be a dark place, if it is steered that way by the people who live within it. He is particularly concerned where scientific invention concentrates power with that more dystopian human intent, but doesn't feel that is the reason to suppress further technical developments: we 'hope that the good of a better understanding of man and society which is offered by this new field of work may anticipate and outweigh the incidental contribution we are making to the concentration of power (which is always concentrated, by its very conditions of existence, in the hands of the most unscrupulous).' (p.29). Control and responsibility for technology that operates AI is indeed another key part of the debate today (Powell, 2020). The underlying philosophy steering the intention of the technical inventors can be said to be decidedly *human.* It focused on increasing human agency, for human purpose. Today's AI rhetoric still captures a concern over human job losses (Frey & Osborne, 2017), but Dwivedi et al. (2019:11) point out that there is a continuing need for people to work alongside AI. This is also illustrated by the sequel to the first edition of *Cybernetics*¸ called *The Human Use of Human Beings* (Wiener, 1950). Similarly, JCR Licklider wanted to free up valuable human time by assigning drudgery tasks to the computer (1960); John Atanasoff wanted his students freed up from mindless calculation, to instead spend it on creative, inventive thinking (Waldrop, 2001:36); Douglas Engelbart (1962) described the importance of advanced computing to *assist* people in their *human* approach to complex decision-making. Certainly, AI was welcomed for these purposes, but human thinking and decision-making was still placed higher up the value ladder. There, of course, is also the tricky part that human decision-making is consciously or unconsciously politically driven. The technology comes to be in service of the human-politician. If technology is awarded its own decision-making capacity, it will arguably follow those origins. As Dwivedi et al. (2019:11) states: 'AI can augment human decision-making, but human efforts are also required to augment AI'.

Under Licklider's management, a group steered by Marvin Minksy left to create the MIT AI Lab. Their focus was more so machine intelligence (rather than augmenting human intelligence), and their political convictions made them also 'deeply suspicious of the establishment' (Waldrop, 2001:311). Their ambition was to construct a free-thinking machine (a *contradictio in terminis,* perhaps), beyond the settled boundaries of human life as they knew it, creating an entirely different driver to the politics of technology.

From this discussion, it might seem that the internet is a fully intentional, pre-determined construction. This was not the case – it is the product of many separate projects and individual thinking and endeavours. As described in *The Dream Machine* (2001), JCR Licklider was one of the people who brought the ARPA community together, which culminated in the material successes during the second half of the sixties. As the community formed on a practical level, there was also intellectual alignment which can be traced in individual writings. Licklider describes this community as one steered by hopefulness (1979:126). However, the community was also careful not to position itself explicitly as 'political'. While ARPA was funded by the Pentagon, and the project attracted many enthusiastic students and young researchers to computer science, it was also a time of activism and anti-government demonstration in view of the Vietnam war (Waldrop, 2001: 280). JCR Licklider describes how the US defense was an active and enthusiastic funder of computer research, but also that it was a time of prevalent and growing 'distrust of Washington' (Licklider, 1979:95). Politics was not considered a positive occupation, a concern which Smith (2017) highlights, even though paradoxically the anti-war demonstrations were of course political actions in themselves. Politics was, however, associated with corruption, hidden agendas, imposed authority (as it sometimes is today in public opinion). The promise of future internet technology was liberating. Again paradoxically, technology needed politics to progress, towards the future which promised to be anti-political when politics denoted the traditional establishment.

Licklider (1979) emphasised the need for long-term thinking in technological development, rather than the focus on short-term return-on-investment planning. To him, the impact on society was more important than budget justifications. Wiener echoes that cautious optimism, because: "Even when the individual believes that science contributes to the human ends which he has at heart, his belief needs a continual scanning and re-evaluation which is only partly possible. [It needs] an imaginative forward glance at history which is difficult, exacting, and only limitedly available… We must always exert the full strength of our imagination." (Wiener, 1960). The next paragraph will consider present-day examples at that intersection of politics and technology, with the actual or presumed role of AI crystallising the potential impact on society further, particularly in view of the notion of surveillance.

3. The Toss of the Coin: Traditional, Relational and Manipulative Surveillance

This paragraph will discuss how technology can result into a manipulation of the public, as well as bringing about a high risk of restricting civil liberties. Surveillance is at the heart of this issue. Much internet-enabled technology in present-day society is based on the so-called *surveillance capitalism* (Zuboff, 2019). Surveillance has grown to be a crucial resource for structuring and regulating social relations (Lyon, 2008, 2017, 2018). Data on the ways of individuals and social groups, provides watchers with a comparative advantage which enables them to predict, anticipate, manipulate or curb any either action or any reaction from those who are watched. AI intensifies this. Surveillance has ceased to be a mainly passive, repressive resource, with the main aim of pushing back unpredicted flows of social relations, and has grown to be a crucial tool for contemporary society. For this reason, such authors as David Lyon (2007, cit.), on the trail of Michel Foucault (2008), call this new kind of surveillance as *relational.* Such a surveillance is rooted in interpersonal relations. In order to understand this concept better, we have to distinguish between three different kinds of surveillance: vertical or repressive, horizontal or relational, and, the new one we can outline in relation to politics, the manipulative one, which is fuelled by a bottom-up pattern engendering a top-bottom flow.

3.1. Traditional Surveillance

The most popular kind of surveillance is the vertical, or repressive one. It is wielded by the State apparatuses, such as the police and the magistrates, over the whole population. Its main task consists of controlling social interactions to ensure the enforcement of law and the repression of deviant behaviours. It is mediated by laws and apparatuses, and it works from the top to the bottom, as its use is regulated by the command of the State. Arrests, convictions, imprisonments are consequential to the procedures followed under vertical surveillance. Its means are hard, as they are mainly means of physical coercion, such as truncheons, tasers, guns, prisons. But AI can be a *soft* means of informing the hard control, or even replacing it by cover manipulation of public thought. AI may become a weapon for preventive control. Either the individuals or the groups who are deemed as "at risk" to national security for their lifestyle, ethnicity, religion, can be targeted. Metadata thus becomes the technology of politics. Ventura, Deflem and Miller (2005) explain how the Project Carnivore enforced by the American government after 9/11 has resulted into a mass targeting and following criminalisation for many Muslims holding the US Citizenship. Here, we can assume AI operates solely as a government tool, enforcing the establishment from which early AI pioneers sought to break away.

3.2 Relational Surveillance

The vertical, repressive forms of control continue to be in force, while a more horizontal surveillance develops and spreads across the social fabric. It is a breakthrough form of social control. Firstly, it is not meted out from the top to the bottom. While the state is still a crucial actor of surveillance even in this case, its enforcers are mainly private actors, such as contractors, software firms, worldwide brands, individuals. AI can be operationalised to gather the same wide range of data, but rather than top-to-bottom use, it becomes a horizontal means of surveillance, for example for capitalist ambitions. While laws such as the GDPR regulate data processing about individuals, AI can add more intelligent data gathering, profiling, and associations. As a consequence of this, a preventive control is developed. Linder (2019) discusses how AI produces a re-territorialisation of surveillance, creating a hub wherein new forms of control are both designed and enacted, thus posing a threat to civil liberties. It is the softness of relational surveillance to engender its paradox, which we could call the paradox of horizontality, and which we illustrate in the figure 1 below. It is a one-directional form of surveillance, which taps the relations in a horizontal way for its own gain. The locus of power is identifiable, and AI (likely in the form of a proprietary tool) directly serves the gain of that power, possibly while appearing to be in service of the individual's freedom.

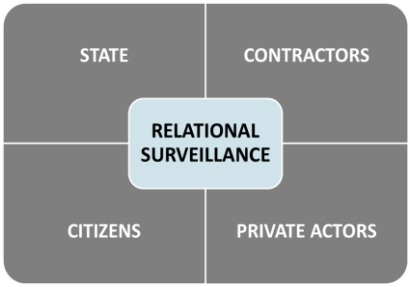

Figure 1: The Paradox of Relational Surveillance: The Softness of the Horizontal

3.3. Network-based Surveillance

As a further articulation of traditional surveillance and relational surveillance coming together, we are now facing a network-based surveillance, involving a plurality of actors. It is carried out through the use of the same 'soft' means, which are not even perceived by the public as a means of control. There is no clear 'locus' of surveillance, and the related power and indoctrination. That does not mean it's not there. An AI monitoring and steering this environment might further influence its politics. It operates covertly too, but is still steered by human beings, either in its design or continued use. Private actors, such as IT entrepreneurs or TV producers, might use AI to create such products as political platforms which allow these private entrepreneurs to accumulate data about the public. Single individuals are also involved in surveillance activities. The political orientations of the public on such political issues as death penalty, immigration, racism, war, can be obtained by creating for example profiling polls on private platforms which are *presented* to stimulate a direct involvement of the public in the decision process. A popular TV slogan on 1980s Berlusconi TV was: "it is you who make the show", luring the public into participating to polls, quizzes and televised votes. This strategy had indeed the purpose of gaining a grasp of the public tastes and orientation, for political manipulation. Both the Cambridge Analytica and the Rousseau Platform case are examples of this strategy online. Secondly, consent is covert at best, with data "extorted" by making the public believe they are expressing their opinion or that they are voting freely to orient the decision-maker or the decision itself. The illusion of participatory democracy which the technology brings becomes a totalitarian tool. Looking back to the title of Wiener's (1950) book, *On the Human Use of Human Beings*, acquires a very different meaning in the online political surveillance and manipulation of today. The Rousseau platform might look different from the Cambridge Analytica case, because only those with an account can access it and also because its aims are explicitly political. Despite this, it is a direct development of the old tool, that is the blog of Beppe Grillo (the actor who funded the movement), which has been hosting public discussions long before the party was founded. Moreover, the Rousseau platform share with Cambridge Analytica the ambiguity of online democracy. On the one hand, participants are set free to express themselves on relevant political issues. On the other hand, their freedom of expression is regulated by a format set up by the private actors who organised the poll. As Sampedro and Mosca (2018) point out, online platforms, far from producing direct democracy, confirm and strengthen plebiscitarian leaderism. Figure 2 illustrates what we can call "the format cycle" in the technology of politics (or politics of technology?).

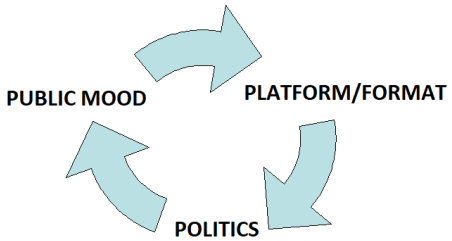

Figure 2. The Platform Cycle

Considering platform politics, with network-based surveillance, it's hard to tell where the cycle of politics begins and ends. The outcome is the elaboration of a political format which pretends to embody the decisions of the public, but risks to pose a serious threat to civil liberties due to its surveillance mechanisms. While AI is not the cause of that, it can intensify those mechanisms. Firstly, because the participation of the public to the political arena is the backbone of democracy, and should not be mediated by purposes of profits which private actors pursue. AI platforms in particular may be seen as independent from human influence or decision-making, but the steering force of machine intelligence still stems in human minds, and therefore is consciously or unconsciously political. What would happen if private platforms gain power and the opinion of the public would not match their purpose? This question relates directly to the second problem that the technologisation of politics poses. Private actors who produce and structure political platforms operate in a double-selective way: as well as choosing the issues to be discussed, they also simplify the level of the discussion. Under the first aspect, it is evident that it is easier to gain votes by fuelling such issues as crime repression than to propose a lenient policy. Some authors have shown how penal populism (Simon, 2007) has helped building the careers of those politicians who advocate a law-and-order attitude on crime. This shows all the potential danger of leaving in the hands of private actors the discussion of such crucial issues as civil liberties, as the combination of the quest for profit with an (alleged) people's will end up restricting the room for such issues

are the presumption of innocence and diversity. Secondly, this risk is related to the way political discussion is processed. Participants to the platform are left free to express without facing a discussion with other counterparts, then they are required to answer to YES/NO questions, without any chance of developing an in-depth discussion of the issue. As a consequence of this, the public will produce key political decisions without an informed position. Indeed, AI can come to inform the human decision-making, much like Licklider (1960) envisioned. But who will gather and filter the information for consideration? Again, the machine intelligence must not be mistaken as a neutral entity. When Barlow (1996) wrote *A Declaration of the Independence of Cyberspace*, added to the myth of the advanced technology as a politically neutral domain. Moreover, the illusion of direct democracy provided by the idea of the internet may bring a sense of entitlement to overcome those mechanisms of civil liberty protections, such as the rule of law and the constitutional procedures, which have been crucial elements of democracy in the last seventy years. The online space ends up in a constant surveillance of the public, which is regularly polled (sometimes overtly, sometimes covertly) to check its orientation, and eventually manipulated by political and market strategies worked out to gain economic and political control. As AI continues to monitor and steer the mix in this platform cycle, it could become the covert actor to all. Where originally it was steered and developed by people, it could become an independently steering force, in the network which no longer could identify the source of power clearly. The technology has becomes its own politics.

4. Conclusion

The pioneering hope often centres on the idea that an individual may be empowered by engaging with the online political realm, as a political subject, with individual agency. However, we can question whether all individual people engage with online platforms in a political manner; or indeed, if those online platforms are overtly constructed as a political realm, or covertly only. In both scenarios (although the covert construction may be more suspicious by its nature), a person may become the object of politics, rather than an empowered citizen in some form of Western political idealism. AI is welcomed with that hopeful focus on the empowerment of individual human beings, and the reinvigoration of participatory politics, as discussed in the first half of this paper. At the same time, the pioneers cautioned against naïve adoption of technology, especially where political power was at stake. It requires, as Norbert Wiener called it, an 'imaginative forward glance'. While its technological development has complex political roots, the individuals involved in its construction were decidedly political themselves. Today, we can see some of those darker sides come into effect, as illustrated by the West-European examples addressed in the second half of this paper. The imaginative forward glance that brings AI into the mix of online technology and politics can cast a shadow on its utopian glimmer, particularly considering models of surveillance which impact the individual citizen. Machine intelligence must not be mistaken for being a neutral tool. Especially platforms which employ a political surveillance can end up using technology to promote manipulation which, while giving the public the illusion of a direct participation to the decision-making process, have indeed the outcome of triggering that populism that manipulates the public sphere and discriminates, as well as producing a constant surveillance of the public.

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